Primary video assisted intubation

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INNOVATION

Telephone 1920, Iphone now

TV set 1940, Curved Oleds TV now

Macintosh 1943, Macintosh Now
Why has primary video laryngoskopy not been implemented in anaesthesiology so far?

- The feeling of urgency is lacking; incidence of severe complications is low. (but of patient discomfort by minor complications high)
- Old habits die hard; one feels secure with DL.
- Lack of interest in minor discomforts for the patient.
- Cost involved in VL.
- Not very sexy.
- We do not want to lose our only magic trick.
THE DISADVANTAGE OF VIDEO LARYNGOSCOPY?
Cost.

Since when did that stop innovation in the medical field? Is it a valid argument?

We have no problem spending 15-20 Euro a patient on a non life-threatening thing such as awareness-monitoring although awareness is far less prevalent then a difficult intubation. (and the advantages dubious)

The cost has fallen dramatically with the introduction of newer models VL like Medan and do not really exceed the cost of DL with disposable blades.
Anesthetists should be able to perform DL intubation.

Debatable, but ok, a surgeon should be able to perform an open cholecystectomy.

It does not prevent him from having the laparoscopic cholecystectomy as the golden standard though.

So DL and VL can co-exist.
The training argument.

Compare with nerve block:
A trainee should be able to work with a nerve stimulator in case there is no echo machine. And if the battery of the stimulator is flat, should he also learn to do blocks with paresthesia?

So we spread the development of expertise to cover two techniques when one has already proved that it is better and safer.

Is this logical?

The same applies to VL
The after training argument.

What if your training is finished, and you have to work in a hospital which does not use VL?

You would do the same as if they have no ultrasound:

Insist on being given state of the art equipment

With ultrasound, the costs are far higher, and yet every hospital has one. With VL today there is not even cost that can be used as excuse.
If video laryngoscopy (or any other technique) had been the solution it we would no longer see any deaths as result of failed intubation.

1. You simply can't take this stand because we do not know. There has not been any research on the subject. What we do know is that patients still die of failed intubation started in DL modus. We also know that more than 94% of patients impossible to intubate with DL are intubated at first attempt with video laryngoscopy.

2. Primary VL is not THE solution, but it will certainly reduce anesthesia related morbidity and mortality.
THE solution is implementing (training) a proper airway algorithm. NOT in lots of toys or swapping one toy for another.

Airway algorithms have been taught and trained for decades now. If an airway algorithm (or any other technique) had been the solution we would no longer see any deaths as result of failed intubation.

Why not use the best device routinely, a vl, so you learn to handle it well in all circumstances.

PVL is not swapping one toy for another; it is swapping a 19 century flashlight for high tech video which CAN look around the corner.

Why not start the algorithm with a device the you will use later in the algorithm anyway?

The quantity of intubation tools poses a threat to success hence the little experience with the individual devices.
I never miss.

I have done thousands, and never lost a patient.

I have a back up plan.

I use VL when DL fails me, which hardly ever happens.

I do not want to lose my ability with DL.

I do not want to give up a trick that gives me status.

I get by, and to be honest, the matter does not interest me enough.
ADVANTAGE FOR PRIMARY VIDEO LARYNGOSCOPY

- Massive scientific proof of better visualization of vocal cords.

- All users, and especially the less experienced ones, have a much higher first pass success rate.

- Less force needed > less pressure on dental structures. (ALL, including highly experienced intubators, apply pressure on the teeth while intubating, more so in difficult intubations)

- Better and more controlled placement of the tube.

- Registration of intubation procedure on photo or video

- Good educational possibilities for DL as well as VL technique.
As yet not one scientific, evidence based ground is found to NOT support primary video laryngoscopy, and there is a massive load of scientific evidence supporting its use.

There is a lot of evidence that DL results in discomfort for up to 40% of the patients. Even though only a very small percentage suffers severe complications or death of these cases an extremely high percentage (nearing 100%) is due to unexpected difficult intubation.

I dare to take the stand that a lot of morbidity and mortality is avoidable by primary VL.
DL should be, and remain, one of the basic abilities of every anesthesiologist. The big problem with a lot of (indirect) VL devices is:

- They are not suitable for DL intubation
- When you lose vision by salvia, blood or any other fluids blocking the camera, you are in the blind.
- With an indirect only VL you are partially blinded.
- With a bridge device, without losing the advantage of VL you still can put a little pressure on the tongue to aid a free pathway for the ET tube.
- With a bridge device, like Medan, you can switch to DL if necessary.
- A bridge device is very well suited to teach residents both techniques.
Mankind has been drilling holes with this machine for decades and almost always succeeded so why change? If we fail we can always get the rescue device out of a drawer........
CONCLUSIONS

There is no excuse for routinely subjecting your patients to DL when there is a safer method available for a comparable price

In difficult intubations, (expected or unexpected) there is no excuse for starting with an inferior instrument and then switching to a device you are not very familiar with once the situation has already been made harder.

If airway algorithms where the solution there would be no intubation related mortality. (Since airway algorithms have been taught and trained since decade, you can google hundreds of variety's)

The solution:
Replace all Macintosh laryngoscopes with VL scopes. Your patients will be safer and more comfortable for it.
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